JEFFERSON PARISH
Department of Purchasing

Michael S. Yenni
Parish President

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Director

June 6, 2016

ADDENDUM # 2

Bid No.: 50-00116537

Bid Opening Date: June 9, 2016 / 2:00 PM

For: Labor, Materials, and Equipment Necessary to Furnish and Install a Tot-Lot and Fence at Terrytown Head Start Center for Jefferson Parish Department of JeffCap

➢ ADDITIONAL SPECIFICATIONS

Additional Specifications Added to Bid:
Following are fifteen (15) additional pages of specifications. This shall be part of the contract documents
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Sincerely,

Melissa Ovalle

Melissa Ovalle, Buyer II
Jefferson Parish Purchasing Department

Bidders must acknowledge all addenda on the bid form. Bidder acknowledges receipt of this addendum on the bid form as indicated. Failure to do so will result in bid rejection.

This addendum is a part of the contract documents and modifies the original bidding documents and specifications. The contents of this addendum shall be included in the contract documents. Changes made by this addendum shall take precedence over the documents of earlier date.

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JEFFCAP – TERRYTOWN HEAD START CENTER
6-23 MONTH PLAYGROUND EQUIPMENT SPECIFICATIONS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

The provisions of the entire contract documents are hereby made a part of this section.

1.02 STANDARDS

Meet the requirements and recommendations of the applicable portions of the latest edition of Guidelines by the Consumer Product Safety Commission Publication No. 325, Standards by the American Society for Testing and Materials (ASTM Standard #1487-07) and the Americans with Disabilities Act Architectural Guidelines (ADAAG) as set forth in the Federal Register.

1.03 SUBMITTALS

If bidding other than the specified product, contractors shall submit the following information within 10 days of bid opening date, along with a list of deviations from the actual specified items. If bidding other than the specified product bidder shall list Brand and Model they are bidding on their bid form.

A. Submit product data on all materials specified herein.
B. Submit complete shop drawings showing all dimensions, details, and specifications of equipment.
C. Submit colored 3-D drawings
D. Submit proof of warranty as specified herein.
E. Submit a detailed list of any deviations from the specified product.
F. Submit IPEMA certification showing compliance with all applicable portions of the current ASTM F-1487 Standard.

PART 2 - PRODUCTS

2.01 MANUFACTURER

Basis of design is Landscape Structures, Inc. Custom Aluminum PlayShaper structure appropriate for ages 6-23 months, per attached drawing or "Approved Equal".

2.02 SCOPE

This section includes all materials, components, and associated accessories to complete and install the playground equipment specified, or approved equal.

2.03 GENERAL SPECIFICATIONS

A. **MATERIAL:** All materials shall be structurally sound and suitable for safe play. Durability shall be insured on all steel parts by the use of time tested coatings

such as zinc plating, galvanizing, ProShield finish, Tendertuff (PVC) coating, etc. Color shall be specified.

B. **HARDWARE (FASTENERS):** Primary fasteners shall be socketed and pinned tamper-proof in design, stainless steel (SST) per ASTM #F879 unless otherwise indicated. All primary fasteners shall include a locking patch type material that will meet the minimum torque requirements of IFI-125. The material, when allowed the 72-hour cure time, shall require a minimum of 4 times the installation torque to remove the fastener. Manufacturer to provide special tools for pinned hex fasteners. **NOTE: HARDWARE THAT IS NOT VANDAL RESISTANT AS STATED ABOVE, SHALL NOT BE ACCEPTABLE.**

C. **TENDERTUFF COATING (or approved equal):** All metal components that should be Tendertuff-coated shall be thoroughly cleaned in a hot phosphatizing pressure washer, and then primed with a water-based thermosetting solution. Primed parts shall be preheated prior to dipping in U.V. stabilized, liquid poly vinyl chloride (PVC), and then salt cured at approximately 400 degrees. The finished coating shall be approximately .080" thick plus or minus .020", at an 85-durometer hardness and have a matte finish. Standard colors are brown, tan, red, and blue.

D. **PROSHIELD FINISH (or approved equal):** All material components with ProShield finish shall be thoroughly cleaned and phosphatized through a five-stage power washer. Parts should be then thoroughly dried, preheated and processed through a set of automatic powder spray guns where a minimum .002" of epoxy primer should be applied. The parts should be allowed to cool and then pass through a second set of automatic powder spray guns. A minimum .004" of architectural-grade Super-Durable polyester TGIC powder should be applied. The parts should be oven-cured at 400 degrees F metal temperature for 10 minutes. The average ProShield film thickness should be .006"

ProShield (or equal) should be formulated and tested per the following ASTM standards. Each color should meet or exceed the ratings listed below:

1. Adhesion (D-3359B) rating 5B
2. Hardness (D-3363) rating 2H
3. Impact (D-2794) rating minimum 80 inch-pounds
4 Salt Fog Resistance (B-117 & D1654) 4000 hrs; rating 7 or greater
5. UV Exposure (G154, 340 bulb) 3,000 hrs; rating delta E of 2 and 90% gloss retention

E. **DECKS:** All Tenderdecks shall be of modular design and have 5/16" diameter holes on the standing surface. There shall be a minimum of (4) slots in each face to accommodate face mounting of components. Tenderdecks shall be manufactured from a single piece of low carbon 12 gauge (.105") sheet steel conforming to ASTM specification A-569. The sheet shall be perforated then flange formed and reinforced as necessary to ensure structural integrity. The unit shall then be Tendertuff coated brown only. Tenderdecks shall be

designed so that all sides are flush with the outside edge of the supporting posts.

F. **ROTATIONALLY MOLDED POLY PARTS:** These parts shall be molded using prime compounded linear low-density polyethylene with a tensile strength of 2500 psi per ASTM D638 and with color and UV stabilizing additives. Wall thickness varies by product from .187" (3/16") to .312" 5/16". Four standard colors are available.

G. **PERMALENE PARTS (Or equal)**: These parts shall be manufactured from ¾" thick high-density polyethylene that has been specially formulated for optimum U.V. stability and color retention. Compression molded products shall meet or exceed density of. 960 G/cc per ASTM D1505, tensile strength of 2400 PSI per ASTM D638. Standard solid colors are tan, red, blue, green, and yellow. Some Permalene parts are available in a two-color product with (2) .100" thick exterior layers over a .550" interior core of contrasting color.

H. **FOOTINGS:** Unless otherwise specified, all footings shall be for shall be designed for a 2" below grade surface mount application **(see dwgs for exceptions).**

I. **MAINTENANCE KIT:** An order-specific maintenance kit shall be provided for each structure order. The kit shall include a notebook or packet with a 2nd set of installation documents and order-specific documentation with recommendations on how often to inspect, what to look for and what to do to keep the equipment in like-new condition. The kit should include touch up primer, appropriate color touch up paint, sand paper, appropriate color touch up PVC, graffiti remover and additional installation tools for the tamperproof fasteners.

2.04 PLAYGROUND GENERAL SPECIFICATIONS

A. **POSTS**: Post length shall vary depending upon the intended use and shall be a minimum of 42" above the deck height. All posts shall be Powdercoated as specified. All posts shall have a "finish grade marker" positioned on the post identifying the top of the protective surfacing. Top caps for posts shall be aluminum die casts from 369.1 aluminum alloy and Powdercoated to match the post color. All caps shall be factory installed and secured in place with (3) self-sealing rivets. A molded low-density polyethylene cap, with drain holes, shall be pressed onto the bottom end of the post to increase the footing area from 2 square inches to 20 square inches.

1. Aluminum Posts – PlayShaper (or equal): Aluminum posts should be 2-3/8" square and shall have a minimum wall thickness of .125" and be extruded of 6061-T6 aluminum alloy and have rounded corners and ribbed faces for maximum safety. A cast aluminum top cap shall be installed at the factory with stainless steel knurled spacers and aluminum drive rivets. Flanges for panels and deck supports shall be extruded of 6061-T6 aluminum alloy and slide into slots extruded in posts. Flanges and deck supports shall be attached in the factory with stainless steel knurled spacers and aluminum drive rivets. A molded low density polyethylene cap shall be pressed onto

the bottom end of the post at the factory providing a spread footing. Posts shall have a post number sticker for installation purposes. All surface mount posts shall be continuously welded to a 1/4" x 5" diameter 6061-T6 aluminum surface mount plate and allow for 2" of protective surfacing. Posts shall be powder-coated as specified. **NOTE: STEEL POSTS ARE NOT ACCEPTABLE DUE TO RUSTING**.

C. **RAILS, HANDLOOPS**: These parts shall be constructed of 1-1/8" O.D. Steel Tubing with a .120" wall thickness. Each end of the rail/handloop shall have a stainless steel knurled, welded insert with 5/8" internal threads. Exposed rails, and handloops shall be TenderTuff-coated (or equal).

D. **TENDERDECKS**: All decks shall conform to the General Specifications and utilize 3/8" Stainless steel welded studs with stainless steel nuts and washers to secure them to deck hanger clamps. Optional shapes are listed below.

1. ONE-PIECE SQUARE DECK: Decks shall conform to the "General Specifications" and finished size shall be 2-5/8" x 44-3/8" square. The maximum step height shall be 6" to a maximum deck height of 30", 42" x 44-3/8" extension decks and 42" square corner decks are also available to combine to make any size of larger deck at the same height.

2. KICK PLATE: Shall be fabricated from 11 GA HR flat steel finished with a TenderTuff (or equal) coating.

COMPONENTS AND ATTACHED PLAY EVENTS:

1. ENCLOSURES/HANDHOLD PANELS: Enclosures should conform to the "General Specifications" for Permalene parts and shall be 30" high x 39 ½" wide. (6) 3/8" hex-pin cap screws and 3/8" hex-pin flange nuts shall secure panels to bolt flanges on posts. Accessible Reach panels are 39 ½" wide x 13" high. Panels are as listed below:

Bead & Block Panel	Sound Chimes Panel
Driver Panel	Mirror Panel
House Panel	

2. WIRE BARRIER**:** the top and bottom horizontal rails shall be constructed of 1.05" O.D. scheduled 40 tubing. The vertical outside members shall be constructed of 1/4" x 1" flat steel and shall attach to flanges on posts with 3/8" standard fasteners. The inside of the barrier shall be constructed of 3/16" diameter wire welded to the top, bottom and sides. The spacing of the wire shall be 2" high x 3" wide. After fabrication, entire unit shall be TenderTuff (or equal) coated. Height of the barrier shall be 31 1/2" from top of the deck to top of the barrier.

3. INFANT SINGLE POLY SLIDE: Slide bed shall be rotationally molded from U.V. stabilized linear low density polyethylene, color specified. Exit Footer weldment shall be comprised of 2.375" O.D. RS20 (.095" - .105") galvanized steel tubing and

1/4" x 3" mounting plate. Finish: ProShield®, color specified. Handhold/hood panel shall be solid color Permalene® (or equal).

4. CRITTER CANYON CLIMBER: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified. Insect panel shall be two color Permalene (or equal) measuring 39 ½" wide x 31 3/16" high. Support weldment shall be comprised of 1.660" O.D. RS-20 (.085" - .095") galvanized steel tubing and fabricated 11 GA (.120") 304 stainless steel plate.

5. TUNNELS: Tunnels and tunnel slides shall be rotationally molded into 24" diameter sections with external bolt flanges with a lip-over design. Tunnel sections shall be attached to each other and to Permalene end panels/enclosures with standard fasteners.

6. BALCONY DECK: Deck shall be straight edge flange formed from 12 GA (.105) sheet steel conforming to ASTM A569. Standing surface should be perforated with 5/16" diameter holes. The finished size should measure 2 5/8" x 34" (straight edge) x 17" radius (curved edge). Unit shall be TenderTuff (or equal) coated brown in color. Barrier weldment should be comprised of 5/8" solid steel vertical rails; 1 1/8" O.D. steel horizontal rails with 203 or 303 stainless steel welded inserts with 5/8" internal threads. Barrier shall be TenderTuff (or equal) coated as specified.

7. WHEEL: The 12" diameter wheel with offset hub shall be cast from 319.1 aluminum alloy. The wheel shall be TenderTuff (or equal) coated with a 303 stainless steel shaft. The wheel clamp should be formed from 3/16" x 2" HRP) zinc plated and a powdercoat finish. **NOTE: PLASTIC OR PAINTED STEEL WHEELS ARE NOT ACCEPTABLE.**

8. SQUARE POLY ROOF WITH LOGO: Roof shall be a rotationally molded one-piece and shall be 54" square. Roof shall be secured to post with (1) 3/8" fastener molded to an aluminum casting and turned onto molded-in "T" nut. Casting shall be secured to post with (2) 1/4" x 5/8" drive rivets. Roof logo should be two color Permalene (or equal) and should measure approximately 41 13/16" wide x 5/18" high allowing for 15 characters.

2.05 INDEPENDENTS - GENERAL SPECIFICATIONS

1. WELCOME SIGN: Sign panel should be fabricated from 11 GA. (.120") (3,05 mm) steel sheet. Finish: ProShield®, gray in color. Sign should be a digital image transferred to a .120" (3,05 mm) thick ProShield coated steel plate, then infused into the ProShield surface. Sign post weldment should be comprised 2.375" (60,33 mm) O.D. RS20 (.095-.105) (2,41 mm-2,67 mm) wall galvanized tube, 1/4" (6,35 mm) HRPO steel sheet and aluminum post cap with a ProShield finish, color specified.

PART 3 - INSTALLATION

All materials must be installed in strict accordance with manufacturer's recommendations and instructions. The installation shall be done by a FACTORY CERTIFIED INSTALLER.

PART 4 – WARRANTY

- **100-Year Limited Warranty** for all stainless steel fasteners, aluminum posts, clamps, beams and caps, against structural failure due to corrosion/natural deterioration or manufacturing defects. This warranty does not include any cosmetic issues or wear and tear from normal use.

- **15-Year Limited Warranty** for all plastic and steel components, including TuffTimbers™, against structural failure due to corrosion/natural deterioration or manufacturing defects. TenderTuff™-coating against structural failure due to natural deterioration or manufacturing defects. (Except Wiggle Ladders, Chain Ladders and Swing Chain). TuffTurf® against material or manufacturing defects when properly installed. Cable on net climbers against breakage.

- **3-Year Limited Warranty** for all other parts, ie: CableCore™ products, Swing seats and hangers, Swing Chain, etc. against failure due to corrosion, natural deterioration or manufacturing defects.

This warranty does not include any cosmetic issues or wear and tear from normal use.

JEFFCAP – TERRYTOWN HEAD START CENTER
PRE-ENGINEERED SHADE STRUCTURE

PART 1 – GENERAL

1.1 Related Documents

A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specifications Sections, apply to this section.

1.2 Scope

A. The shade structure manufacturer shall be responsible for the design, engineering, fabrication, and supply of the work specified herein. The intent of this specification is to have only one manufacturer be responsible for the above functions.

B. Contractor is responsible for installation of the new shade unit including concrete footings Equipment rental, dumpster, hauling of dirt from holes to be included in contractors pricing. Contractor shall also include any site dressing necessary after completion of installation.

1.3 Submittals

A. Provide (3) sets of wet-sealed structural engineering design drawings and calculations. These drawings should include; plans, elevations, details, dimensions, support steel sizing, cables and hardware, interfaces to foundation supports, design loads used in structural calculations, and foundation reaction loads.

B. Provide fabric samples and powder coat colors for final order selection upon request.

1.4 Quality Assurance

Fabrication and erection are limited to firms with proven experience in design and construction of fabric shade structures, and such firms shall meet or exceed the following minimum requirements:

A. Contractor/Installer should have experience in erecting these type of shade structures.

1.5 Project Conditions

A. Field Measurements: verify layout information for shade structures shown on the drawings in relation to the property survey and existing structures, and verify locations by field measurements prior to bidding.

1.6 Warranty

A. The successful bidder shall provide a one (1) year warranty on all labor and materials.

B. A supplemental warranty from the manufacturer shall be provided for a period of ten (10) years (pro-rated) on fabric and ten (10) years on the structural integrity of the steel, from date of substantial completion.

C. The warranty shall not deprive the Owner of other rights the Owner may have under the provisions of the Contract Documents, and will be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 – PRODUCTS

2.1 General

Pre-Engineered Package:
The proposed structure manufactured by Sun Ports, a brand of USA SHADE & Fabric Structures, Inc., or **APPROVED EQUAL**, shall be modular and pre-fabricated, and include the structural steel frame, fabric roof, steel cables, all fasteners, and installation of structure(s), including foundations.

A. **(1) 26' x 30' x 8' entry unit including (1) top and (4) posts**

B. All shade structures are engineered and designed to meet the following loads, but is also dependent on the geographic location of the installation.

Wind speed (Frame only): 150mph
Wind speed (Frame with fabric) 90mph

C. Steel

1. All steel members of the shade structure shall be designed in strict accordance with the requirements of the "American Institute of Steel Construction" (AISC) Specifications, and the "American Iron and Steel Institute" (AISI) Specifications, for cold-formed members.

2. All connections shall have a maximum internal sleeving tolerance of 0.0625 inches, using high-tensile strength steel sections, with a minimum sleeve length of 6 inches.

3. All non-hollow structural steel members shall comply to ASTM A-36. All hollow structural steel members shall be cold-formed, high-strength steel, and comply with ASTM-A500, Grade C. All steel plates shall comply to ASTM A-572, Grade 50. All galvanized steel tubing shall be triple-coated for rust protection using an in-line electroplating coat process. All galvanized steel tubing shall be internally coated with zinc and organic coatings to prevent corrosion.

D. Bolts

1. All structural field connections of the shade structure shall be designed and made with high-strength bolted connections using ASTM A-354, Grade B or SAE J249, Grade 8.

2. All stainless steel bolts shall comply with ASTM F-593, Alloy Group 1 or 2. All bolt fittings shall include rubber washers for water-tight seals at joints. All nuts shall comply with ASTM F-594, Alloy Group 1 or 2.

E. Welding

1. All shop-welded connections of the shade structure shall be designed and performed in strict accordance with the requirements of the "American Welding Society" (AWS) Specifications. Structural welds shall be made in compliance with the requirements of the "Prequalified" welded joints, where applicable, and by certified welders. **No onsite or field welding shall be permitted**.

F. Powder Coating

1. Galvanized steel tubing preparation prior to powder coating shall be executed in accordance to solvent cleaning SSPC-SP1. Solvents such as water, mineral spirits, xylol, toluol, are to be used to remove foreign matter from the surface. A mechanical method prior to solvent cleaning, and prior to surface preparation, shall be executed according to Power Tool Cleaning SSPC-SP3, and utilizing wire brushes, abrasive wheels, needle gun, etc.

2. Carbon structural steel tubing preparation prior to powder coating shall be executed in accordance to commercial blast cleaning SSPC-SP6 or NACE #3. A commercial blast-cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, mill scale, rust, coating, oxides, corrosion, as well as other products or foreign material.

3. Powder coating shall be sufficiently applied, with a minimum 3 mils thickness, and cured at the recommended temperature to provide proper adhesion and stability to meet salt-spray and adhesion tests, as defined by ASTM International, formerly known as the American Society for Testing and Materials.

4. Powder used in the powder coat process shall have the following characteristics:

a.	Specific gravity:	1.68 +/- 0.05
b.	Theoretical coverage:	114 +/- 4ft^2/lb/mil
c.	Mass loss during cure:	<1%
d.	Maximum storage temperature:	75° F

5. **Epoxy Powder Coating Primer** This product was formulated for excellent corrosion protection over properly prepared steel substrates, where barrier properties and cathodic protection of the steel substrate are critical. Used as a primer in second coat applications for severe service applications.

G. Tension Cable

1. Steel cable is determined based on calculated engineering load.

2. For light and medium loads; 1/4" (nominal) galvanized 7x19 strand cable to be used.

3. For heavy loads; 3/8" (nominal) galvanized 7 x 19 cable to be used.

H. Fabric Roof Systems

1. UV Shade Fabric

a. UV Shade Fabric is Shadesure® fabric, manufactured by MultiKnit Ltd., (OR EQUAL) and made of UV-stabilized high-density polyethylene (HDPE). This mesh fabric must be Rachel-knitted with monofilament and tape yarn filler (weighted at 195g per square meter) to ensure that the material will not unravel if cut. Panels are to be ten (10) feet wide.
b. Fire testing. Fabric shall conform to, and pass, the ASTM E-84 testing standard, as well as the NFPA701 Test Method 2 standard.
c. Fabric Properties: - Life expectancy 8-year minimum with continuous sun exposure

a. Stitching and Thread

a. All sewing threads are to be double-stitched, with no sewing/stitching allowed on-site.

b. Thread shall be GORE™ TENARA® sewing thread (OR EQUAL), manufactured from 100% expanded polytetrafluoroethylene (PTFE). This mildew-resistant, exterior-approved thread shall meet or exceed the following:
- Flexible temperature range
- Very low shrinkage factor
- Extremely high strength; durable in outdoor climates
- Resists flex and abrasion of fabric
- Unaffected by cleaning agents, as well as acid rain, mildew, saltwater
- Rot-resistant, and unaffected by most industrial pollutants
- Specially treated for prolonged exposure to the sun
- Lockstitch thread – 1200 Denier or approved equal
- Chainstitch thread – 2400 Denier or approved equal

c. All corners shall be reinforced with extra non-tear fabric and strapping to properly distribute load(s).

d. The perimeters of the fabric top that contain the cables shall be double lockstitched.

PART 3 – EXECUTION

3.1 Installation

Installations of shade structures shall comply with manufacturer's instructions for assembly, installation, and erection, per approved drawings.

A. Concrete

1. Concrete work shall be executed in accordance with the latest edition of the American Concrete Building Code, ACI 318.

2. Concrete specifications shall comply as per plans, and as follows:

a.	28-day strength F'c	2,500psi
b.	Aggregate	HR (shall conform to ASTM C-33)
c.	Slump	3 ~ 5
d.	Portland Cement	shall conform to C-150

3. All reinforcement shall conform to ASTM A-615, Grade 60.

4. Reinforcing steel shall be detailed, fabricated, and placed in accordance with the latest ACI Detailing Manual, and Manual of Standard Practice.

5. Whenever daily ambient temperatures are below 80° F, the Contractor may have mix accelerators and hot water added at the batch plant (see below).

Temperature Range	Acceleration	Accelerator Type
75° ~ 80° F	1%	High Early (non-calcium)
70° ~ 75° F	2%	High Early (non-calcium)
Below 70° F	3%	High Early (non-calcium)

6. The Contractor shall not pour any concrete when daily ambient temperatures are below 55° F.

END OF SECTION

JEFFCAP – TERRYTOWN HEAD START CENTER
6-23 MONTH PLAYGROUND SURFACING SPECIFICATIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Resilient, interlocking, playground safety surfacing tiles.

1.2 RELATED SECTIONS

A. Section 03300 - Cast-in-Place Concrete: Concrete subsurface, 3000 psi **Contractor to provide approximately 1550 s.f. of new 4" concrete sub-base and walkways including wire mesh reinforcement and light broom finish as shown on drawing.**

1.3 REFERENCES

A. ASTM C 67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.

B. ASTM D 395 - Standard Test Methods for Rubber Property--Compression Set.

C. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension.

D. ASTM D 573 - Standard Test Method for Rubber-Deterioration in an Air Oven.

E. ASTM D 624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.

F. ASTM D 1667 - Standard Specification for Flexible Cellular Materials-Vinyl Chloride Polymers and Copolymers (Closed-Cell Foam).

G. ASTM D 2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.

H. ASTM D 2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.

I. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.

J. ASTM E 303 - Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.

K. ASTM F 1292 - 04 - Standard Specification for Impact Attenuation of Surface Systems under and Around Playground Equipment.

L. US Consumer Product Safety Commission (CPSC) Handbook for Playground Safety.

M. IPEMA Certification

1.4 SUBMITTALS (Within 10 days of bid submittal)

A. Product Data: Submit manufacturer's product data, including installation instructions and subsurface instructions.

B. Samples: Submit manufacturer's sample of 1 full tile (upon owner request)

C. Test Reports: Submit certified test reports from qualified independent testing agency indicating results of impact attenuation testing.

D. Certificate of Compliance: Submit manufacturer's certificate of compliance indicating materials comply with specified requirements.

E. Manufacturer's Project References: (upon owner request)
   1. Submit list of successfully completed projects.
   2. Include project name and location, name of architect, and type and quantity of playground safety surfacing tiles furnished.

F. Installer's Project References: (upon owner request)
   1. Submit Manufacturer's Certified Installer letter for the company doing the installation.

G. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.

H. Warranty: Submit manufacturer's **10 Year** warranty as specified.

1.5 INSTALLER'S QUALIFICATIONS:

1. Employ persons trained for installation of playground safety surfacing tiles.
2. Approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage:
   1. Store materials in accordance with manufacturer's instructions.
   2. Playground Safety Surfacing Tiles:
      a. Store tiles in a dry area at a minimum temperature of 50 degrees F (10 degrees C) for a minimum of 72 hours before installation.
      b. Protect tiles from direct sunlight before installation.
   3. Adhesive: Store adhesive in a dry area at a minimum temperature of 50 degrees F (10 degrees C).

C. Handling: Protect materials during handling and installation to prevent damage.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Tile Temperature: Ensure surface temperature of playground safety surfacing tiles is a minimum of 50 degrees F (10 degrees C) at time of installation.

B. Air Temperature: Ensure air temperature is a minimum of 40 degrees F (4 degrees C) for a minimum of 24 hours before and during installation.

1.8 WARRANTY

A. Materials and Workmanship: Playground safety surfacing tile installation shall be warranted for defects in materials and workmanship for **10 years from date of completed installation**.

B. Performance: Playground safety surfacing tile installation shall be warranted to meet drop height performance requirements of ASTM F 1292 - 04 for **10 years from date of completed installation.**

PART 2 PRODUCTS

2.1 MANUFACTURER

A. SofSURFACES, Inc., or **APPROVED EQUAL**. **Non-interlocking tiles will not be acceptable because they do not allow for proper expansion and contraction of the tiles during temperature changes. This can cause gaps, tears, etc that can become a safety hazard.**

2.2 PLAYGROUND SURFACING TILES

A. Tiles: "SofSurfaces, Inc. Tile "KrosLOCK" DuraSAFE Series (Or Equal)
   1. Series: **PREMIUM – 50% black/50% color (pigmented tiles are not acceptable)**
   2. Description: Resilient, interlocking, playground safety surfacing tiles.
   3. Compliance: Meet or exceed ASTM F 12924 Standards and CPSC guidelines for impact attenuation.
   4. Material: Compression-molded, recycled rubber and binding agents.
   5. Tile Locking: U-shaped male and female configuration on all 4 sides to lock tiles to adjacent tiles.
   6. Top Edges: Chamfered.
   7. Tile Bottom: Hollow core stanchion pattern. Stanchions shall have density equivalent to wear layer.
   8. Wear Layer:
      a. Premium Series: Virgin TPV rubber granules. Minimum 0.250 inch thick.
   9. Size: 24 ¼" X 24 ¼" Nominal. Installed size: 24 1/16" X 24 1/16"
   10. Thickness: 2 inches min. or greater as needed to meet ASTM Standards and minimum G-Max and HIC noted further in the spec.

B. Test Results:
   1. Impact Attenuation, ASTM F 1292: (Independent laboratory test results must be submitted within 10 days of bid submittal)
      a. **Gmax: Less than 150**.
      b. **Head Injury Criteria (HIC): Less than 750**.
   2. Freeze Thaw, ASTM C 67: No deterioration.
   3. Rubber Deterioration / Air Oven, ASTM D 573: No deterioration.
   4. Slip Resistance:

a. ASTM E 303:
   1) Dry: 102.
   2) Wet: 62.
b. ASTM D 2047:
   1) Dry: 0.81.
   2) Wet: 0.82.

5. Compression Deflection, ASTM D 1667: 29.5 psi to 25 percent compression.
6. Compression Set, ASTM D 395: 4.37 percent permanent set.
7. Tensile Strength, ASTM D 412: 107 psi.
8. Elongation at Break, ASTM D 412: 165 percent.
9. Tear Strength, ASTM D 624: 33.1 pounds per inch.
10. Wear Surface Density (Durability): 60 pcf minimum.
11. Flammability:
    a. Burning Pill, ASTM D 2859: Pass.

2.3 ACCESSORIES

A. Corners:
1. Prefabricated outside and inside corners.
2. Material: Same as playground safety surfacing tiles.

B. Ramps:
1. Prefabricated Ramps: “SofRAMP Jr.” (or equal)
2. Prefabricated ADA-Compliant Ramps: “SofRAMP ADA” (or equal)
3. Material: Same as playground safety surfacing tiles.

C. Adhesive:
1. Single-component, 100 percent solids, polyurethane.
2. Waterproof.
3. Tube format.
4. Furnished by manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas to receive playground safety surfacing tiles. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 PREPARATION

A. Prepare subsurface in accordance with manufacturer's instructions to ensure proper support and drainage for playground safety surfacing tiles.

B. Concrete Subsurface:
1. Concrete subsurface shall be a minimum of 4” thick; 3000 psi with mesh reinforcement. *See Drawing
2. Apply light broom finish.
3. Ensure concrete is sound with no loose material or cracks over 1/8 inch wide.
4. Ensure concrete is a minimum of 10 days old.
5. Test concrete for moisture in accordance with manufacturer's instructions to ensure it has

sufficiently cured and is dry.

6. Power wash existing concrete in accordance with manufacturer's instructions.

3.3 INSTALLATION

A. Install playground safety surfacing tiles in accordance with manufacturer's instructions at locations indicated on the Drawings.

B. Ensure prepared subsurface and tiles are dry and clean.

C. Layout tile surface in accordance with manufacturer's instructions.

D. Install tiles in a single installation session.

E. Layout in advance tiles to be installed in single installation session.

F. Apply adhesive in accordance with manufacturer's instructions for tile-to-tile and perimeter tile-to-base installation.

3.4 CLEANING

A. Remove adhesive spills from playground safety surfacing tiles in accordance with manufacturer's instructions.

B. Clean tiles in accordance with manufacturer's instructions.

3.5 PROTECTION

A. Protect playground safety surfacing tiles from foot traffic for a minimum of 12 hours after installation.

B. Protect completed tiles from damage during construction.

END OF SECTION